

On-Site Putting Green Variety Trial

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National Turfgrass Evaluation Program

Objectives:

1. To evaluate cultivars of bermudagrass and creeping bentgrass on participating golf courses for use as putting green turf and provide comparative performance data for end users.

Start Date: 1996

Project Duration: 5 years

Total Funding: \$71,600

(Co-funded with NTEP and GCSAA)

Many new bentgrass and bermudagrass cultivars have been commercialized in the last few years. However, there is a lack of research data on their performance under intensively managed putting green conditions. This project evaluates these grasses on golf course putting or chipping greens built to USGA recommendations. This research differs from evaluations conducted at university research stations because the greens are used by golfers for practice putting and/or chipping. The evaluation trials are jointly sponsored by the Golf Course Superintendents Association of America (GCSAA), the United States Golf Association (USGA) Green Section and the National Turfgrass Evaluation Program (NTEP).

Trial sites are located on golf courses near a land grant university with a turfgrass research program or in a major metropolitan area which is readily accessible to a university turfgrass scientist. Sixteen evaluation trial sites have been established. Bentgrass trials were all seeded in fall 1997, with one exception. Bermudagrass

trials were planted using vegetatively propagated material in June, 1998. Detailed management information was also reported for each site including establishment (date and any problems), mowing (height, frequency, mower type, rollers and groomers used), cultivation (dates and type of aerification, verticutting and topdressing), pesticide and fertilizer regime used (dates, rates and products used) and factors of play (opening and closing date for play, types of spikes allowed, uses of green). The two reports can be found on the NTEP web site at <http://www.ntep.org/onsite/ost.htm>.

The bentgrass entry 'Penn A-4' was again the most consistent top-performer having the highest mean quality rating at six sites in 2001. In 2001, however, 'Penn A-1' and 'Penn G-1' improved their performance relative to 'Penn A-4'. While 'Penn A-4' finished in the top statistical group for turfgrass quality at ten locations, 'Penn A-1' and 'Penn G-1' both finished in the top statistical group at eight of the thirteen locations. Stimp meter readings again showed little or no statistical differences among the cultivars. The site at Murrieta, CA (SCGA Members Club) showed good cultivar differences for resistance to *Poa annua*. The entries with the lowest percentage of *Poa annua* were 'Penn A-4', 'Penn A-1', 'Penn

G-1' and 'Penn G-6'.

'Mini-Verde' was again the most consistent bermudagrass performer by finishing in the top statistical group for mean turfgrass quality at all seven locations. 'TifEagle' was in the top statistical grouping at six locations while 'Champion', 'MS-Supreme' and 'Tifdwarf' were close behind finishing in the top statistical group at four locations each.

Data collected on genetic color, density, leaf texture, spring greenup, overseeding quality and thatch showed considerable cultivar variability. Also, at one location (Mobile CC), high nematode populations were found to have a significant effect on turfgrass performance.

Summary Points

- The bentgrass entry 'Penn A-4' was again the most consistent performer having the highest mean quality rating at six sites in 2001.
- However in 2001, 'Penn A-1' and 'Penn G-1' improved their performance relative to 'Penn A-4'
- The site at Murrieta, CA (SCGA Members Club) showed good cultivar differences for resistance to *Poa annua*. The entries with the lowest percentage of *Poa annua* were 'Penn A-4', 'Penn A-1', 'Penn G-1' and 'Penn G-6'.
- 'Mini-Verde' was again the most consistent bermudagrass performer by finishing in the top statistical group for mean turfgrass quality at all seven locations.
- 'TifEagle' was in the top statistical grouping at six locations while 'Champion', 'MS-Supreme' and 'Tifdwarf' were close behind finishing in the top statistical group at four locations each.
- Stimp meter readings again showed little or no statistical differences among the cultivars.
- At one location (Mobile CC), high nematode populations were found to have a significant affect on turfgrass performance.



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